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ABSTRACT

These four reports resulted from a series of studies undertaken by the Community College of Allegheny County to evaluate its Block Scheduling Project, which schedules students into a block of developmental courses centered around a core, transferable course in either psychology or history. The first report briefly describes the project, considers student placement procedures, outlines the seven steps in the learning process emphasized in each course, and reviews the format and content of the psychology, reading, composition, and math courses. This report also details the methodology and findings of a project evaluation which measured changes in students' attitudes, anxieties, learning behaviors, and reading and vocabulary levels after participation in the psychology-based program and which also compared the quality point averages (QPA) and re-enrollment rates for blocked and nonblocked students. The second report compares, through Fall 1979, the QPA's and retention rates of these blocked and nonblocked students. Finally, the last two reports detail the evaluation of the blocked program offered in Fall 1978 that centered around a history, rather than a psychology, core course. These reports compare retention rates; English, reading, and math grades; and QPA's for those students who took advantage of the Fall 1978 blocked program and those who did not. (JP)

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The Block Scheduling Project

at

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FALL 1977 PILOT BLOCK PROJECT

Follow-up Study

through Fall 1979

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Follow-up data was collected on the Fall 1977 Block Project students (experimental group) and Non-Block students (control group). Students were tracked through the Fall 1979 term. The two variables in the study consisted of retention and semester QPA's. Significance testing was done through the Spring 1978 term only. Significance testing for the remaining three semesters is yet to be completed. The following pages represent a tabulation of the findings.

TABLE 1

FALL 1977 PILOT PROJECT BLOCK
Retention Analysis Follow-up,

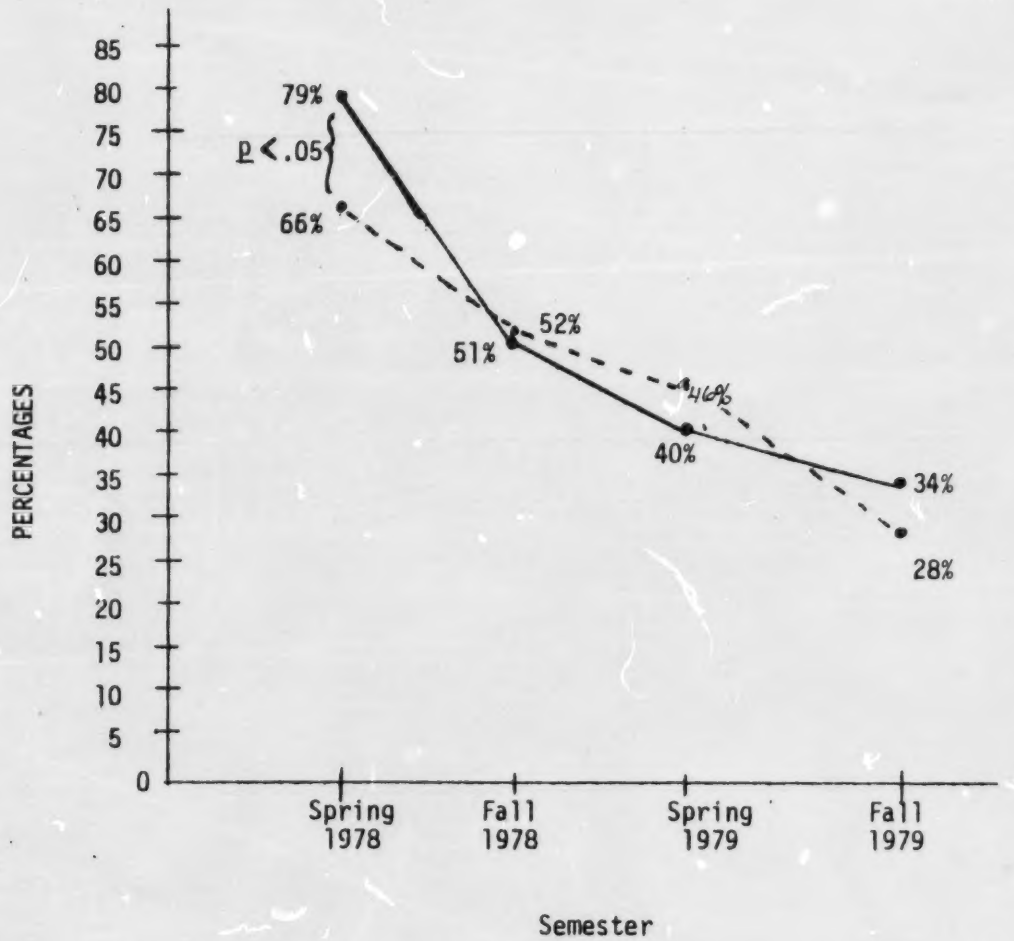
BLOCK AND NON-BLOCK STUDENTS

		BLOCK		NON-BLOCK	
		N	%	N	%
Spring	1978	70	79%*	97	66%
Fall	1978	45	51%	73	52%
Spring	1979	36	40%	66	46%
Fall	1979	30	34%	39	28%

* $\chi^2 = 4.29$ $p < .05$/1 dif.

FIGURE 1

FALL 1977 PILOT PROJECT BLOCK
RETENTION ANALYSIS FOLLOW-UP,
BLOCK AND NON-BLOCK STUDENTS



BLOCK ——— ORIGINAL N=89

NON-BLOCK ------ ORIGINAL N=114

TABLE 2

FALL 1977 PILOT PROJECT BLOCK FOLLOW-UP
Mean Cumulative QPA by Semester,

BLOCK AND NON-BLOCK STUDENTS

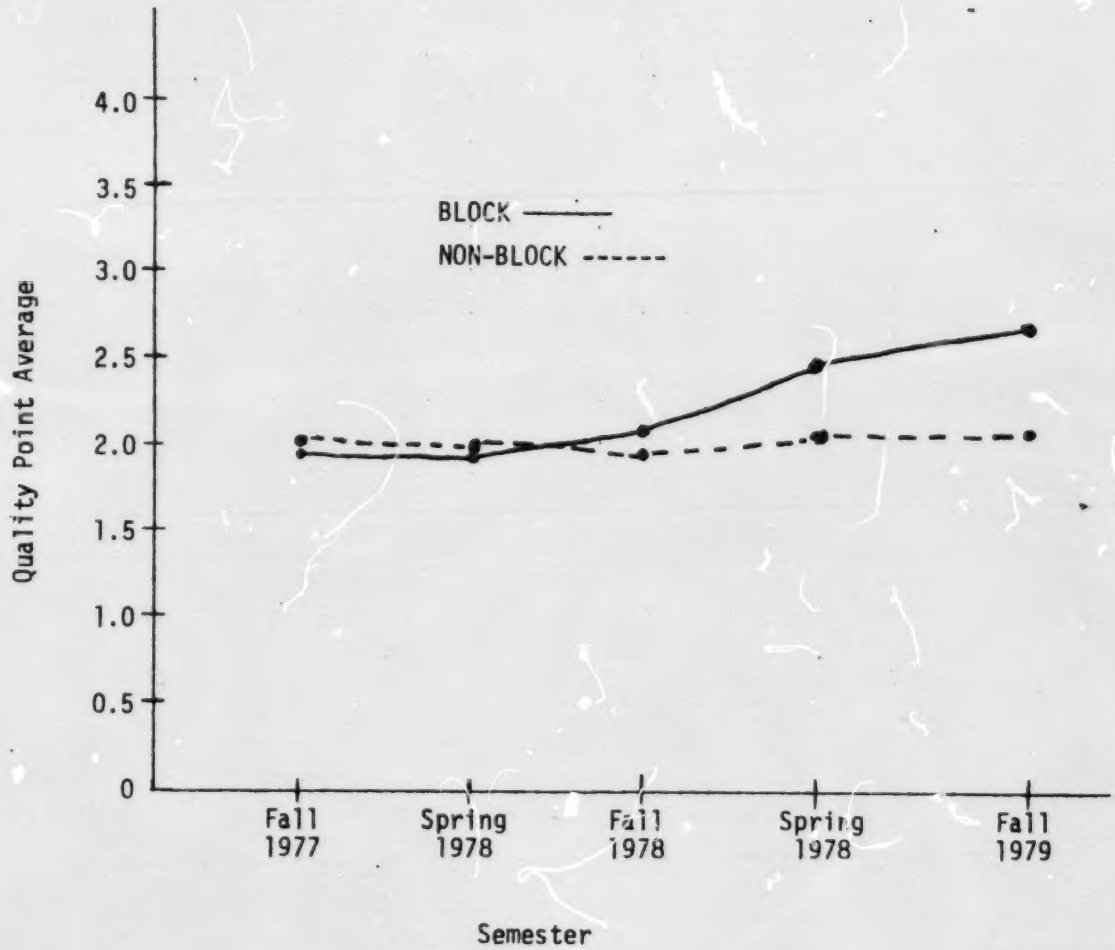
		BLOCK		NON-BLOCK	
Fall	1977	1.97	(N=83)	2.03	(N=1.46)*
Spring	1978	1.88	(N=68)	1.93	(N=92)*
Fall	1978	2.28	(N=42)	1.99	(N=71)
Spring	1979	2.45	(N=34)	2.13	(N=66)
Fall	1979	2.71	(N=28)	2.14	(N=37)

* NS

FIGURE 2

FALL 1977 PILOT PROJECT BLOCK FOLLOW-UP
Mean Cumulative QPA's by Semester

BLOCK AND NON-BLOCK STUDENTS



The Block Scheduling Project:

Curriculum Integration in Developmental

Courses at the Community College

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The Block Scheduling Project: Curriculum Integration in Developmental Courses at the Community College

Introduction

Approximately 80-percent of the students enrolling at the Allegheny Campus of the Community College of Allegheny County lack, or need review in, the basic skills of English, reading and mathematics. These students, identified by placement tests, are advised to enroll in developmental (remedial) courses before attempting courses in their major area of study. It is hoped that these developmental courses will provide them with the academic skills necessary to pursue their educational, vocational and personal objectives at the community college.

There are two levels of developmental courses at the Allegheny Campus. The first level offers instruction to students whose reading comprehension scores average a 7.0 to 9.0 grade level, who need help in grammar and the construction of the basic English sentence, and who need refresher work in basic arithmetic. The second developmental level aids students whose reading comprehension scores range from 10.0 to 12.0, who need assistance in the structure of paragraph and multi-paragraph writing, and who need to learn the fundamentals of algebra and geometry.

This paper discusses a pilot project at the Allegheny Campus that focused on the second developmental level. Students were blocked scheduled into specific developmental courses where they shared the same courses and the same teachers in common. The project integrated the curriculum of three developmental courses--Advanced Reading and Study, Basic Principles of Composition and Fundamentals of Algebra and Geometry--around a core course, Human Behavior. In addition to the integration of these courses, the project also placed a specific focus on the skill of learning-how-to-learn, and this skill was reinforced by and applied to each of the four courses within the block schedule.

Student Selection

The admissions office permitted the four faculty teaching the project to go through the folders of students who had taken the placement tests. All those students whose scores placed them into Advanced Reading and Study, Basic Principles of Composition and Fundamentals of Algebra and Geometry were then placed into Human Behavior, a psychology course that counts toward graduation and is transferable.

A special orientation-registration, conducted by the four faculty teaching the project, was held for these students. The block program was explained to them and they were given the option of taking their developmental courses within the structure of the block or taking their developmental course work in non-block classes. All but one student chose the block schedule. When the project began in the fall, eighty-nine (89) students were enrolled.

Curriculum Integration

Curriculum integration was the most important emphasis in the project. The Human Behavior course was the core academic course, and the developmental courses, specifically the reading and English, acted as supportive services to the Human Behavior course objectives. This integration's chief focal point centered around teaching the students the skill of learning-how-to-learn. This objective was accomplished by teaching students to apply the Learning Counseling process to all their courses (Garfield and McHugh, 1978). Learning Counseling is a process where students are taught a series of seven systematic steps that they can use to learn their content material. Steps 1 through 5 are concerned with input learning behaviors; steps 6 through 7 are concerned with output learning behaviors. These steps are as follows:

1. Read selectively. Students are encouraged to read short sections of their textbook to select portions of the material they want to study.

2. Takes Notes. Students are urged to take notes from the textbook after each short section is read.

3. Knead Notes. "Knead" is a term that includes various levels of organization and sythesization of material: retranslating a difficult term, perceiving the main ideas, relating main ideas, perceiving relationships, developing new insights.

4. Overview Students briefly review their notes in order to move away from the specific detail and return to the general framework of the chapter.

5. Question Notes. Students are asked to assume the role of the teacher and make up questions from their classroom and textbook notes section by section.

6. Rehearse Answers. Students return to their own student role and answer their own questions either orally, in writing or both.

7. Evaluate Answers. Students become the teacher again and compare their rehearsed answers to their notes. This evaluation may call for students to repeat certain portions of the rehearsal until their learning of the material is more complete and test success is increased.

These learning process steps can be taught to students within the framework of a classroom, and over a fifteen week semester students can be given practice in using the steps. With four classes and with four teachers stressing these steps in their own content areas, it was felt that the students in the Block Project would be given extensive reinforcement and practice with the use of this learning process.

Curriculum Integration of the Learning Counseling Process

Because the Block Project wanted to emphasize and reinforce specific learning skills with students, the Human Behavior course became the focal course. Each of the courses and its application of the learning process will be discussed separately.

Human Behavior. The first three class meetings of the Human Behavior course introduced students to the eight steps in the Learning Counseling process. They were told that as the semester progressed, the reading class would help them in the application of these learning steps, and, as a result of this practice, they would become more efficient in using them. In addition, the students were told that they were to come to the Human Behavior class prepared. This preparation meant that they were to take notes on the assigned textbook chapter prior to their coming to class.

The original format for the Human Behavior class was to have been a combination of large group-small group. The small group format consisted of assigning students to small learning, laboratory groups within the classroom. The purposes of these small lab groups were to allow students time to work on material that had been presented to them, to explain material to one another and thus discover that they could use one another as a learning resource, to develop questions to be brought up in the large groups, and to review for tests. In addition, the small groups allowed the instructor to interact with more students more often and on a more individual basis and to determine if the initial instruction was effective. The large group format was used for the presentation of new material, for clarification of material previously presented, for answering questions that arose in the small group, and for feedback after a test was given.

The large group-small group format existed until mid term. Because of the large number of students in the Human Behavior class (45 in each section), it became increasingly difficult for the instructor to work with from nine to ten groups during a class period. Too little time was allocated to each group, and space and crowding became a problem. The small group format works better when there are no more than eight groups per class. Therefore, after mid term, the Human Behavior class became a straight lecture course. However, because there was such extensive support from the English and reading courses for the Human Behavior process and content goals, the switch in format did not alter the original project goals or instructional objectives. In fact, in their own way the reading and English classes became small Learning Counseling groups supporting the objectives of the Human Behavior class.

Advanced Reading and Study. The course was designed to carefully integrate the teaching of the reading and study skills. Emphasis was placed on increasing students' proficiency in extracting, analyzing, and remembering information from college texts. The format of the class varied from lecture, large, small group instruction to individualized laboratory practice. The content of the Human Behavior course served as a focal point for the practical application of the reading and study skills. In weekly, small group sessions, the students examined the relationship between the text material and class lectures. Lecture and text notes were synthesized by restating main ideas, examining supporting dating, perceiving relationships and developing new insights. Patterns of organization were utilized to develop study questions.

Students had the opportunity to interact with one another and to answer and evaluate their own questions. By receiving periodic feedback on their progress in the Human Behavior class, the students were able to appraise their learning skills and adjust their behavior accordingly. Throughout the term the instructor observed the students' increased proficiency in the use of their reading skills and the learning process.

Basic Principles of Composition. The general goals of the composition course were those designated by the English Department: the students practiced the planning, drafting, revising, and proofreading of short expository essays. Within the framework of these general goals, the integrated curriculum of the Block Project affected the course content in three ways:

1. The topics for essays were drawn from the Human Behavior course.

2. The Human Behavior text was analyzed as an example of expository writing.

3. The particular writing requirements of the psychology course, the writing of essay exams and of summaries of articles, were integrated as units into the composition course.

The relationship of the reader and the writer was a primary focus in the unit on essay exam writing since the students faced in a very concrete way the needs of a particular reader, their psychology teacher. The objective then was to learn to write complete, concise, clear essays under the stress of a timed situation. The English class simulated the stress of the testing situation, but the students learned to combat what one student aptly described as "paralysis of the hand" by applying the steps of the learning process to essay exam writing.

By examining essay test questions collected from other courses, the students learned how to analyze the writing tasks inherent in the questions. They applied their knowledge about the form of the questions by composing essay questions based on their Human Behavior reading and lecture notes. From these questions, the instructor created an essay test which was given under the same time constraints that would govern the actual testing situation.

The students, after the test, discussed the psychological problems they had experienced while trying to write in a timed situation and suggested to each other ways to alleviate the problems. Using criteria they had devised when they wrote the essay questions, they evaluated the class essays for form and content and isolated problem areas that the writers needed to work on. Because the students were working in groups of five, each student received in addition to the instructor's critique, four peer critiques.

Throughout the essay exam unit, the students and the instructor focused on the importance of the learning process in preparing for essay exams. Only through composing and rehearsing of responses during the study process could the students who were not yet fluent writers hope to overcome the tensions created by a timed writing situation.

The psychology instructor reinforced the need for good prose by evaluating the actual test responses for both content and writing. The English instructor received copies of the graded psychology essays and was thus able to work further with those students who were having difficulty with different aspects of their writing.

Fundamentals of Algebra and Geometry. Content wise, it was more difficult to integrate the mathematics course with the other three courses. However, the same learning skills principles could be applied to the course. Therefore, students were encouraged to take notes from their textbooks before coming to the mathematics class and to rehearse practice problems as a means of becoming proficient in their skills. The reading class also spent time with the students showing them how to take notes from their mathematics textbooks.

RESEARCH DESIGN AND EVALUATION

The research design used to evaluate the Block Project was not one that tested hypotheses designed prior to the study. Rather, the research design was more interested in a formative evaluation that would allow us to look at the natural range of variables that exist when a group of students are placed in the same courses with the same teachers and where the curriculum uses a singular theme, such as the Learning Counseling approach used in this project. It is a design that allows all those participating in the project to freely explore the project as they move through it and to make immediate changes when new directions are warranted. A tightly hypothesized research design does not allow such flexibility. Hence, the Human Behavior class mentioned earlier, when it was experiencing difficulty with the small group format due to an over abundance of students, would not have been able to change its direction under a summative research project. However, it could make modifications and adjustments under a formative research approach.

Data Collection

Block Project data were collected, therefore, on the following range of variables:

1. Students' pre-post attitudes, anxieties and learning behaviors.
2. Students' pre-post reading comprehension and vocabulary levels.
3. Students' D, F, W, and I grades for Fall 1977.
4. Student drop outs and their reasons.
5. Students' reactions toward the Block Project.
6. Student demographic data.
7. Students' QPA's.
8. Students' retention.

For the purposes of this paper only several of these variables will be discussed.

Students' Attitudes, Anxieties and Learning Behaviors.

Students were asked to respond on a pre-post basis to the Learning Counseling Test Battery which measured three variables: Attitudes, anxieties and learning behaviors.

Attitudes toward five educationally related concepts were measured by a Semantic Differential. Anxieties toward classroom and test related events were measured by a Fear Survey. Learning behaviors were measured by a self report where students were asked to score the frequency of their behaviors in relation to seventeen learning behaviors items. Tables 1, 2 and 3 present the results of this testing and Figure 1 presents a graphic representation of this pre and post data.

All items were statistically analyzed using the t-test for correlated observations. Significant levels of .05, .01 and .001 are reported. Table 1, the Semantic Differential, shows there is a significant shift from pre to posttesting for all the concepts. After 15 weeks, there were statistically signficant differences in students' attitudes toward "Studying," "My Classes," "Tests," "Myself as Student," and "Teachers."

The Fear Survey, Table 2, reveals that three items showed a significant decrease from pre to posttesting. Students indicated that they felt less anxious toward "Being Called Upon In Class," "Studying A Textbook Chapter," and "Taking Tests" by the end of the fifteen week period.

Eight behavioral items on the Learning Behavior Inventory, Table 3, show a statistically significant change from pre to posttesting. These items include "Pays Attention," "Takes Class Notes," "Takes Textbook Notes," "Relates Textbook Notes to Class Notes," "Puts Ideas in Own Words," "Tests Self," "Studies with Others," and "Takes Tests Carefully."

In addition to the above statistical analysis, correlation studies were performed between the Semantic Differential totals and the Fear Survey totals, the Semantic Differential totals and the Learning Behavior Inventory totals and the Fear Survey totals and the Learning Behavior Inventory totals. Table 4 illustrates these results. Correlations were significant between the Semantic Differential and the Learning Behavior Inventory and the Semantic Differential and the Fear Survey. Within the scope of this project, it can be said that as attitudes toward educationally related concepts increased to more positive levels anxiety tended to decrease and learning behaviors tended to increase.

Reading Comprehension and Vocabulary Levels

Reading comprehension and vocabulary levels were measured by the Nelson-Denny Reading Test. Tables 5 and 6 show the results of this pre and posttesting. Again the t-test for correlated observations was used to determine statistical significance. Table 5 illustrates both vocabulary and reading comprehension scores, and shows that reading comprehension gains were significant at the .01 level.

In order to determine at what reading comprehension levels this significance took place, the comprehension scores were broken into three grade level categories. The t-test for correlated observations was applied to each of these categories. It was discovered that the lowest reading comprehension category, grades 7.0 to 9.9, were where the statistical significance was taking place. As a group, these 15 students moved from a 9.33 mean pre test reading comprehension level to an 11.42 mean reading comprehension level at posttesting.

Comparison Variables: Q.P.A. and Retention

Block students were compared with non-block students on quality point averages and retention. Non-block students were defined as all those students who placed into and took Advanced Reading and Study and Basic Principles of Composition in the Fall 1977 term. A total of 147 students fulfilled this definition of "non-block." Therefore, the comparisons are made on the total population of Allegheny Campus students who could have been in the Block Project.

Q.P.A. Comparisons. Mean quality point averages were computed for block and non-block students for the Fall 1977 term and the Spring 1978 term. The t-test was used to compute the differences between the two groups. There were no statistically significant differences between the two groups on Quality Point Averages for either semester. This data is reported in Tables 7 and 8.

Retention Comparisons. Using the same group of non-block students, retention comparisons were tested. For the purposes of this study retention was defined as the number of students who enrolled in the Spring 1978 semester.

A total of 89 students began the block in the Fall 1977 term. Seventy of those students completed the Block program; 19 students withdrew from school completely. Seventy Block students of the original 89 enrolled for the Spring 1978 term. These students included 67 who completed the Fall 1977 block plus three students who withdrew from school during the first term. Therefore, 96% of the students who completed the block returned for the Spring 1978 term.

The Chi-Square statistic was used to measure the difference in retention between block and non-block students. The results are reported in Table 9. There is a statistically significant difference, at the .05 level, between the retention of block and non-block students in favor of the block students. In terms of percentages, 79% of the original block students returned for the Spring 1978 semester, while 66% of the non-block students returned.

Discussion:

Significantly more block students enrolled for their second semester at the college than did non-block students. This factor is an outgrowth of the close coordination within the block program. Students, as well as the four faculty who taught the program, learned to know each other very quickly. An esprit de corps developed that is not usually possible with students who come to an all-commuter college for the first time. The students' evaluations of the project also underlined this fact. When asked to elaborate the good points of their experience, the majority claimed they "became acquainted with more students more easily" and they had a great deal of "attention from the teachers."

Because the Learning Counseling process used in this project accented active involvement in the studying of material, students became aware of the active role that they should bring to their learning. Their posttest gains in such behaviors as taking textbook notes, putting ideas in their own words, testing themselves and studying with others show that they no longer continued the traditional, passive study often characteristic of developmental students.

The integration of Human Behavior (a psychology course), an English course and a reading course was of special significance in this project. Students began to see the interrelationships among the skills required in these disciplines. Often, it is not until late in students' college careers, if ever, that they become aware of this type of skill integration.

In addition, developmental skills such as reading, study techniques and written communication, are often taught in isolation from mainstream college courses. The students in this project quickly realized the applicability of these skills to the core course. Therefore, the learning of these developmental skills had an immediate pay-off in the real college classroom.

TABLE 1

Semantic Differential
Pre-Post Mean Scores of Block Students
N= 70

	Pre		Post		
	$\bar{X}$	S.D.	$\bar{X}$	S.D.	t
Studying	25.23	4.40	28.27	5.17	4.24***
My Classes	29.77	4.99	34.04	4.76	6.01***
Tests	24.04	5.46	30.87	5.54	7.95***
Myself As Student	29.07	4.95	31.83	5.21	4.05***
Teachers	31.00	4.86	36.11	4.68	7.55***
Total	27.61	3.56	32.22	4.01	9.94***

*** $p < .001/69$ d.f.

TABLE 2

Fear Survey Pre-Post Mean Scores of Block Students
N= 70

	Pre		Post		
	$\bar{X}$	S.D.	$\bar{X}$	S.D.	t
Calls Upon	2.10	0.78	1.57	0.77	4.98***
Study Chapter	1.70	0.80	1.40	0.81	2.27*
Announce Test	2.04	0.77	1.81	0.82	1.87
Study For Test	1.83	0.64	1.73	0.80	0.98
Take Test	2.04	0.71	1.74	0.90	2.45*
Test Mistakes	2.06	0.72	2.07	0.86	0.12
Surprise Test	2.37	0.78	2.21	0.90	1.35
Total	2.03	0.40	1.79	0.53	3.50***

* $p < .05/69$ d.f.

*** $p < .001/69$ d.f.

TABLE 3

Learning Behavior Inventory
Pre-Post Mean Scores of Block Students
N= 70

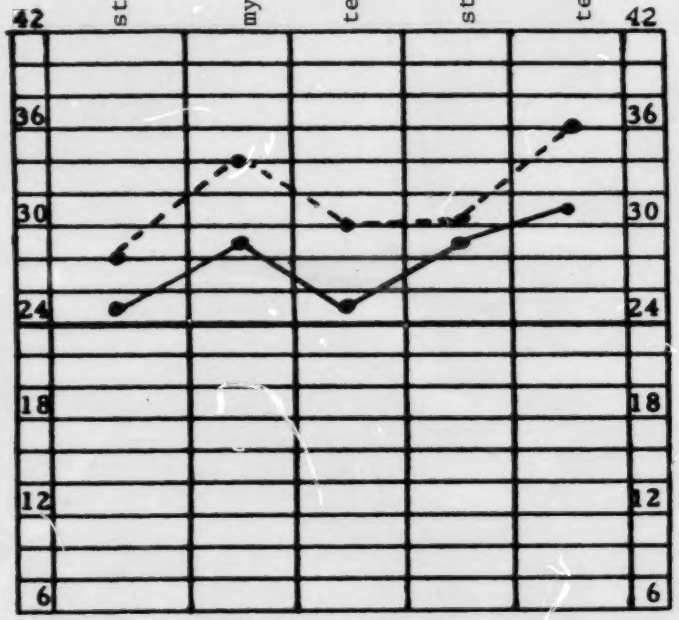
	Pre $\bar{X}$	S.D.	Post $\bar{X}$	S.D.	t
Attends Class	4.81	0.43	4.79	0.41	0.47
Pays Attention	4.07	0.69	4.64	0.51	6.05***
Takes Class Notes	4.21	0.78	4.87	0.34	7.86***
Organizes Class Notes	3.67	1.03	3.84	1.06	1.18
Underlines Text	2.61	1.35	2.99	1.52	1.81
Takes Text Notes	3.13	1.12	4.43	0.79	8.83***
Reorganizes Text Notes	3.11	1.20	3.33	1.21	1.30
Relates Text-Class Notes	3.14	1.11	3.89	1.03	4.77***
Puts Ideas In Own Words	3.63	1.04	4.01	0.94	2.42*
Completes Work	4.20	0.91	4.31	0.84	1.21
Ask Class Questions	2.79	1.03	2.73	1.30	0.42
Answers Class Questions	2.89	1.02	2.67	1.19	1.67
Asks For Help	3.39	1.11	3.61	1.13	1.67
Works Cooperatively	4.23	0.87	4.24	0.97	0.13
Tests Self	2.74	1.32	3.29	1.36	2.61*
Studies With Others	2.34	1.05	2.93	1.31	3.40**
Takes Tests Carefully	4.00	0.85	4.51	0.65	4.18***
Total	3.46	0.51	3.82	0.48	5.94***

* $p < .05/69$ d.f.

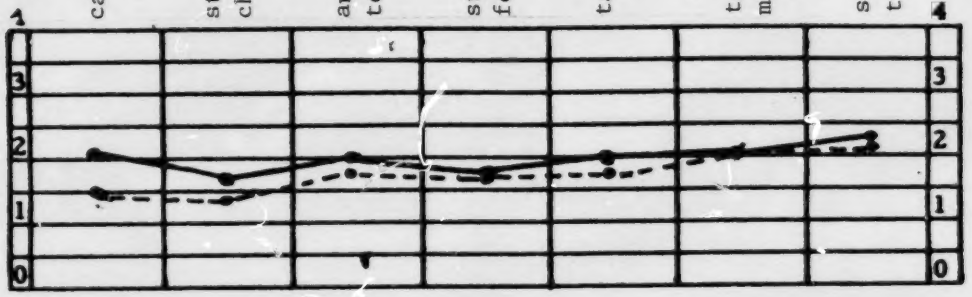
** $p < .01/69$ d.f.

*** $p < .001/69$ d.f.

BLOCK SCHEDULING PROJECT Counselor _____



Semantic Differential



Fear Survey

N = 70

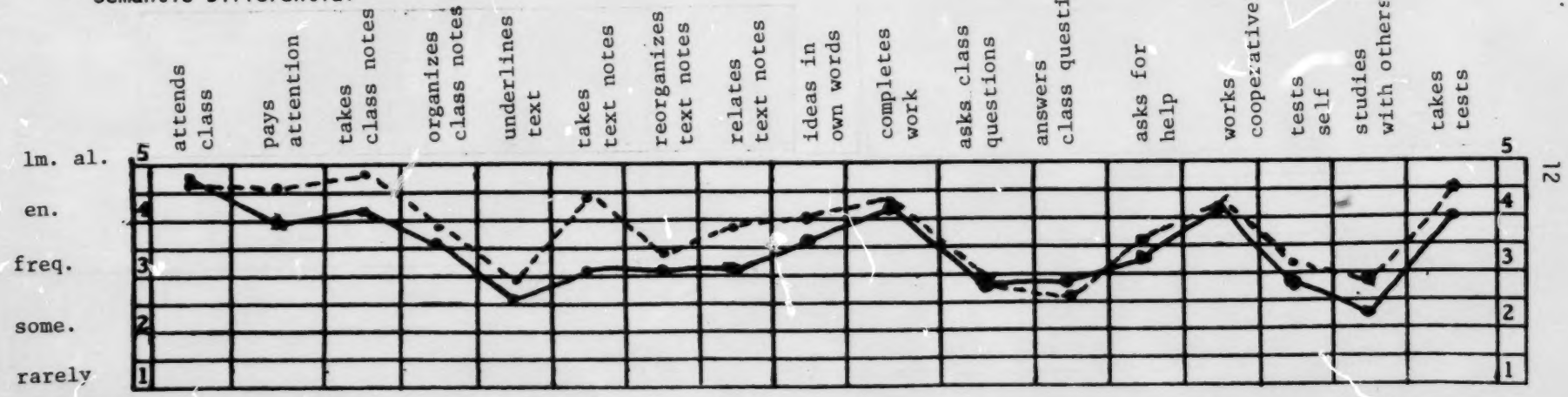
KEY

B (pre) ——

C (post) - - - - -

	FS TOTAL	LBI-S TOTAL

Figure 1



Learning Behavior Inventory

TABLE 4

Correlation Coefficients for
Learning Behavior Inventory, Semantic
Differential and Fear Survey for Block Students
N= 70

	Learning Behavior Inventory r_{xy}	Fear Survey r_{xy}
Semantic Differential	0.32**	0.47**
Fear Survey	0.15	

$p < .01/69$ d.f.

TABLE 5

Pre-Post Mean Scores on Nelson-Denny
Vocabulary and Reading Comprehension for Block Students
N= 61

	Pre $\bar{X}$	Pre S.D.	Post $\bar{X}$	Post S.D.	t
Vocabulary	11.30	1.84	11.43	1.70	0.60
Reading Comprehension	10.82	1.21	11.46	1.66	3.00**

** $p < .01/60$ d.f.

TABLE 6

Breakdown of Nelson-Denny Pre-Post Mean
Reading Comprehension Scores for Block Students

Grade Level	N	Pre $\bar{X}$	Pre S.D.	Post $\bar{X}$	Post S.D.	t
7.0 - 9.9	15	9.33	0.88	11.41	1.83	3.94**
10.0 -11.9	36	10.97	0.63	11.30	1.56	1.39
12.0 -13.8	10	12.52	0.15	12.30	1.10	0.64

** $p < .01/14$ d.f.

TABLE 7

Experimental-Control Group Semester Mean
Q.P.A.'s Excluding Complete Withdrawal Students

		Block Experimental			Non-Block Control			
		N	$\bar{X}$	S.D.	N	$\bar{X}$	S.D.	t
Fall	1977	83	1.97	1.12	146	2.03	1.19	0.33
Spring	1978	68	1.88	1.06	92	1.93	1.10	0.31

TABLE 8

Experimental-Control Group Semester Mean
Q.P.A.'s Excluding Withdrawals and 0.00 Students

		Block Experimental			Non-Block Control			
		N	$\bar{X}$	S.D.	N	$\bar{X}$	S.D.	t
Fall	1977	70	2.35	0.77	123	2.40	0.87	0.51
Spring	1978	60	2.13	0.86	79	2.25	0.83	0.84

TABLE 9

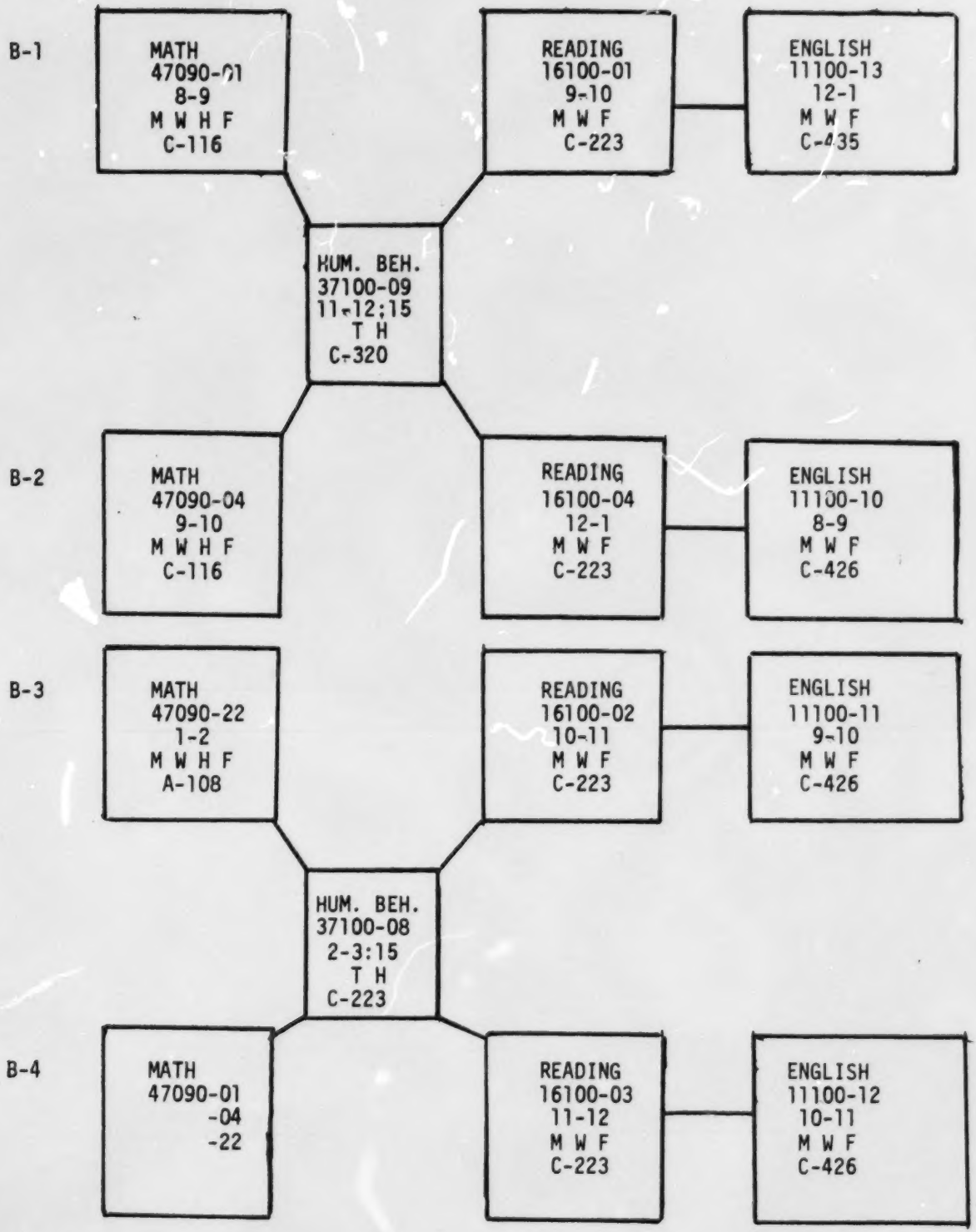
Spring Term 1978
Retention Rates for
Block and Non-Block Students

	Return Spring '78	Non-Return Spring '78	Totals
Block	70	19	89
Non-Block	97	50	147
Totals	167	69	236

$\chi^2 = 4.29$ $p < .05/1$ d.f.

Appendix A

BLOCK SCHEDULE - Fall 1977



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THE RESULTS OF BLOCK SCHEDULING SECOND-LEVEL DEVELOPMENTAL STUDENTS AT ALLEGHENY CAMPUS

Presented by John Lucarelli and Nancy Moore

Nearly all of the students enrolling at the Allegheny Campus of the Community College of Allegheny College lack or need review in one or more of the basic skills areas of English, reading, and mathematics. Placement tests are administered to all students before they register for their first semester. The results of those tests determine whether students will be enrolled in developmental courses before attempting courses in their major areas of study. It is hoped that those courses will provide them with the academic skills necessary to pursue their educational, vocational, and personal objectives at the community college.

Each of the basic skills areas at Allegheny Campus offers two levels of developmental courses. In reading, students whose reading skills average between 7.0 and 9.8 grade levels on the Nelson-Denny are placed in a first level series of courses; those who place between 10.0 and 12.4 are placed in a second level course. In mathematics, tests determine whether a student needs work in a first level course in arithmetic skills or needs to learn the fundamentals of algebra taught at the second level. Specific cut-off scores on the English Coop test are used to place students into a first level developmental English course which focuses on sentence mechanics or a second level course which deals with basic composition skills.

Over the last four years, several programs of block-scheduling students who score at the second level of developmental courses have been developed, and one is currently being tried at the lower level. One such program had a fully blocked schedule which included English, reading, fundamentals of algebra, and a psychology course, with all students taking all four courses with the same group of students and all sections of each course taught by one teacher. Another program blocked

only the English and reading with a content course in history, and five teachers were involved. Both programs were studied in depth with comparisons between students in blocked programs and those in regular courses being made.* Both sets of studies showed a marked increase in retention of students in the block. In addition, there were increases in the Q.P.A.'s of students in the blocked courses. The information presented here is for one of those programs and includes data from both an initial study made immediately after the semester the students were blocked and from a follow-up study conducted a year later.

In the fall of 1978, approximately thirty-seven percent of the total number of students who placed into both the second-level of developmental reading and developmental English were block-scheduled into a history elective, "Man, Time, and Social Change," as well as the reading and English courses. Block enrollment meant that the students shared classes, teachers, and subjects in those areas. One instructor taught all three sections of the history course, each of which had enrollments up to 30 students; two instructors in reading and two in English divided the five sections of each of those courses, where enrollments were kept to a maximum of 20. Other classes were not blocked; however, the schedules set up tended to group students into certain sections of mathematics courses. A total of 219 students were eligible for this program; 80 of them were enrolled.

The 125 qualifying students who had taken placement tests in May and June of 1978 were invited to an orientation for the program in July. Of the 80 who eventually enrolled, almost all attended this orientation. Enrollment in the block, however, was optional. In addition to orientation, actual registration for all courses took place at this first session.

The purposes of the block project were two-fold: (1) to focus the student's classroom work in order to obtain maximum learning impact and (2) to establish a strong first-term student orientation to the institution and to individual academic goals.

* Full reports are available from Dr. Betsy McHugh, Director of the Learning Center, Allegheny Campus, and Dr. James Holmberg, History Department, Allegheny Campus. Both reports have been used for this summary.

The substantive focus for the block was the history course, a college-level, transferrable introduction to the historical social sciences. The content of this course focuses on the importance of paradigmatic understandings in interpreting the human past, present, and future and in determining the individual's position in the social context.

In the reading course, emphasis is placed on increasing students' proficiency in extracting, analyzing, and remembering information from college texts. The content of the history course provided the focus of the practical application of reading and study skills. By receiving periodic feedback on their progress in the history course, students were able to appraise their learning skills and to adjust their behavior accordingly.

The composition course used both the history and reading courses to provide direction to both form and content of the writing assignments. For example, students had instruction and practice in writing reports and summaries in the composition course when they were assigned a book report and summaries in their reading course, and they practiced responses to essay exam topics in preparation for a history exam. In addition, essays written for the composition course grade included either content directly from their history text or were on topics requiring analysis parallel to that in the history course.

Each of the five instructors had a one-course reduction and met regularly to integrate the content of the courses and to discuss student progress. In addition, the history instructor, who was also an academic advisor, served as advisor for these students as they planned their second semester. He also gathered the data and prepared the full report submitted at the end of the first semester. Among his findings were these:

1. The students' placement test scores in English and reading were slightly higher in the blocked group.

	English Coop	Nelson Denny comprehension	vocabulary
Block mean	33.08	11.1	11.2
Control mean	30.88	10.5	11.03

2. The average grades of students in the block were somewhat higher in English and reading courses. The grades in mathematics courses, which were not blocked, were also higher for the blocked students, while their overall Q.P.A.'s at the end of their first semester averaged one-half a grade point higher.

	English	Reading	Math	Total Q.P.A.
Block	2.23	2.77	2.42	2.71
Control	2.05	2.45	2.09	2.20

3. Nearly 20% more students were retained in the blocked group than in the control group.

	N retained	percent	of total
Block	69	86.25	80
Control	94	67.63	139

4. In the attitude surveys of the students in the block program, those areas that they rated most highly in their evaluation of the program were:

Orientation/registration
Academic advisement
Having the same teachers
Having the same students
Having related assignments
Having teachers know each other

These findings indicated that the block had been successful in increasing student achievement and retention as well as in producing a positive attitude toward the students' first college semester.

A follow-up study of both groups of students, which was undertaken in the spring of 1980, indicated that the positive first semester results carried over through the next two semesters. Here are those data:

1. The analysis of retention included registration for spring and fall semesters of 1979, completion of those semesters, totals of withdrawals from an entire semester and failures of an entire semester.

	total N	registered S '79-N and % of total		completed S '79-N and % of reg'd.		total W's-N and % of reg'd.		total F's-N and % of reg'd.	
		N	%	N	%	N	%	N	%
Block	80	69	86.25	64	92.75	2	2.89	2	2.89*
Control	139	109	78.41	82	75.22	6	5.50	21	19.26

*One student received all incompletes.

	total N complete S'79	registered F '79-N and % of total		completed F '79-N and % of reg'd.		total W's-N and % of reg'd.		total F's-N and % of reg'd.	
		N	%	N	%	N	%	N	%
Block	64	54	84.375	51	94.44	2	3.70	1	1.85
Control	82	74	90.24	67	81.70	3	3.66	3	3.66

At the end of three semesters, 51 or 63.75% of the block were still in school while 67 or 48.20% of the control were.

2. Because English I and II are required for all students, grades in those courses were compared as well as overall Q.P.A.'s.

	total N	English I completions N	% of total	Q.P.A.	English II completions N	% of total	Q.P.A.
Block	80	58	72.5	2.26	38	47.5	2.26
Control	139	90	64.75	1.81	32	23.02	2.13

	Cumulative Q.P.A. at end of fall 1979
Block	2.13
Control	1.71

Follow-up Study of Students Enrolled in 11100/16100 Blocked and Control Groups in the Fall Semester of 1978 at Allegheny Campus

Briefly again, all students were scheduled by placement tests to take the second level of development work in both English (11100) and reading (16100). Of the 219 entering students so programmed, 80 were enrolled in a program of block-scheduled courses which included a history course (34100, "Man, Time, and Social Change"). The core content course for the blocked students was the history course taught by James Holmberg; the skills in the English and reading courses were integrated with that content. Five sections of each of those courses were blocked for the students with the English courses taught by John Lucarelli and Nancy Moore and the reading courses taught by Joan Saroff and Reah Wender. For most of the schedule of their first college semester, students shared courses, teachers, and classmates. What follow are a summary of significant findings from the initial study done in January, 1979, by James Holmberg and a summary of the most recent findings of a study of student progress through the Fall semester of 1979.

1. Summary of findings in initial study:

   a) The average English grade of the blocked students was 2.23.
   The average English grade of the control group students was 2.05.
   (All Q.P.A.'s are based on 4.00 A scale)

   b) The average reading grade of blocked students was 2.77.
   The average reading grade of the control group students was 2.45.

   c) The average mathematics--a course not included in the blocked courses--grade for the blocked students was 2.42; the average grade of the students in the control group was 2.09.

   d) The overall Q.P.A. for the blocked students was 2.71.; the overall Q.P.A. for the students in the control group was 2.20.

   e) Of the blocked students, the number retained during the semester was 69 or 86.25%; of the students in the control group, the number retained was 94 or 67.63%.

2. Summary of findings of study of student progress through Fall '79 semester

   a) Of the original 80 students in the block:
   64 (80%) completed the Spring '79 semester
   2 (2½%) failed all courses Spring '79
   2 (2½%) withdrew all courses Spring '79
   11 (13 3/4%) did not register for any courses
   1 received all incompletes

   80 total

Of the original 139 students in the control group:

82 (59%) completed the Spring '79 semester
21 (16%) failed all courses Spring '79
6 (4.3%) withdrew all courses Spring '79
29 (20.8%) did not register for any courses spring '79
138 total (one transcript unavailable)

b) Of the original 80 students in the blocked group:

51 (63 3/4%) completed the Fall '79 semester
1 failed all courses Fall '79
2 withdrew from all courses Fall '79
26 (32½%) did not register for any courses Fall '79

Of the original 139 students in the control group:

67 (48½%) completed the Fall '79 semester
3 (2%) failed all courses Fall '79
3 (2%) withdrew from all courses Fall '79
26 (32½%) did not register for any courses Fall '79
138 total (one transcript unavailable)

c) Of the students in the blocked group, 58 completed English I with an average Q.P.A. of 2.26 (72½%)

Of the students in the control group, 90 completed English I with an average Q.P.A. of 1.81 (65%)

Of the students in the blocked group, 38 completed English II with an average of Q.P.A. of 2.26 (47½%)

Of the students in the control group, 32 completed English II with an average Q.P.A. of 2.13 (23%)

English I and II were chosen to compare because these courses are required for all degree programs, they involve both reading and writing skills--the areas of skills used to place students originally, and they, along with mathematics courses, have been shown to be the courses in which students receive their lowest grades.

d) The average cumulative Q.P.A. for blocked students by the end of the Fall '79 semester was 2.13.

The average cumulative Q.P.A. for control students by the end of the Fall '79 semester was 1.71.

These averages include the last Q.P.A. for students who did not return after one or two semesters and the grades of students who failed all their courses. W grades do not affect the Q.P.A.

If those students who either failed all their courses or withdrew from all their courses are removed from the total numbers, the average Q.P.A. for each group becomes:

block - 2.37
control - 2.33

Conclusions: The greater percentage of retention within the blocked students shown in the original study has continued: it was 18½% higher in the Fall of '78 and continued at 21% in the Spring '79 semester and at 15% in the Fall '79 semester. In addition, a much smaller percentage of students from the blocked program either failed or withdrew from all their courses in their second semester: 5% among the blocked student group as opposed to over 20% from among the control group. In terms of both grades earned and completion of the courses, English I and English II appear to have been less of a nemesis for the students from the block than for the students from the control group. The original difference in Q.P.A. averages between the two groups has narrowed if students who failed all courses or withdrew from all courses are not included in the totals, but that difference continued to be over .4 of a quality point if all students of the original 218 (sic) are included.

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